

Inside Wallops

National Aeronautics and Space Administration
Goddard Space Flight Center
Wallops Flight Facility, Wallops Island, Va.



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NASA Tests Lunar Habitat in Extreme Antarctic Environment

NASA will use the cold, harsh, isolated landscape of Antarctica to test one of its concepts for astronaut housing on the moon. The agency is sending a prototype inflatable habitat to Antarctica to see how it stands up during a year of use.

"Testing the inflatable habitat in one of the harshest, most remote sites on Earth gives us the opportunity to see what it would be like to use for lunar exploration," said Paul Lockhart, director of Constellation Systems for NASA's Exploration Systems Mission Directorate.

The structure looks something like an inflatable backyard bounce house for children but is far more sophisticated. It is insulated and heated, has power and is pressurized. It offers 384 square feet of living space and has, at its highest point, an 8-foot ceiling. During the test period, sensors will allow engineers to monitor the habitat's performance.



NASA /JSC Photo

NASA's Constellation Program is working to send humans back to the moon by 2020. After initial sorties, the astronauts will set up a lunar outpost for long-duration stays, and they will need a place to live.

The agency is developing concepts for habitation modules that provide protection for the astronauts and are easy to transport to the lunar surface.

"To land one pound of supplies on the lunar surface, it'll require us to launch 125 pounds of hardware and fuel to get it there," Lockhart said.

"So our habitation concepts have to be lightweight as well as durable. This prototype inflatable habitat can be taken down and redeployed multiple times, and it only takes four crew members a few hours to set up, permitting exploration beyond the initial landing area," Lockhart continued.

The National Science Foundation also is interested in lighter, easier-to-assemble habitats. It currently uses a 50-year-old design known as a Jamesway hut, which is bulky and complex in comparison to the habitat being tested.

Modern variations on the Jamesway, although lighter, are still rigid and difficult to ship, with limited insulation.

During the test of the new inflatable habitat, the Foundation will study improvements in packing, transportation and set up, as well as power consumption and damage tolerance for this newest variation of the concept.

To enable lunar exploration, the Constellation Program is developing a new fleet of spacecraft and rockets, as well as transportation and power systems for use on the surface of the moon.

Agency officials viewed the habitat (above) recently at ILC Dover in Frederica, Del., as it was inflated one last time before being packed and shipped to Antarctica's McMurdo Station. NASA is partnering on the project with the National Science Foundation, Arlington, Va., which manages McMurdo Station, and ILC Dover, the company that manufactured the prototype structure.

All three organizations will share data from the 13-month test, which runs from January 2008 to February 2009.

An inflatable habitat is one of several concepts being considered for astronaut housing on the moon.

Wallops Being Recognized for TacSat-2 Support

In a ceremony to be held at the NASA Visitor Center on November 29 at 10 a.m., Microsat Systems Inc. will recognize NASA and the Mid-Atlantic Regional Spaceport for supporting the successful launch of the TacSat-2 satellite on an Air Force Minotaur 1 rocket on December 16, 2006.

Microsat of Littleton, Col., developers of the spacecraft bus, will present a scale model of TacSat-2 to Wallops. Presenting for Microsat will be the company's president John Roth and its director of advanced systems, Todd Mosher.

Accepting the model on behalf of Wallops will be NASA Wallops director John Campbell, NASA TacSat-2 project manager Ron Walsh and Spaceport manager Rick Baldwin.

Diversity Council Words to Live By

"You never know when a moment and a few sincere words can have an impact on a life"Zig Ziglar





Wallops Annual Awards Ceremony and Holiday Party

December 7 at 1 p.m.
Building E-100, Auditorium

The Wallops Exchange and Morale Association Executive Board (WEMA) invites employees to the Holiday Party to be held in Building F-3, Rocket Club, immediately following the conclusion of the Awards Ceremony.

Wallops Shorts.....

On the Road

Rebecca Powell, NASA Public Affairs Office, took part in a Career Day event for 5th grade students at Kegotank Elementary School, Mappsville, Va., on November 16.

In the Field

A team from the Columbia Scientific Balloon Facility is in McMurdo Station, Antarctica, preparing for the launch of three long duration scientific balloons during December. The balloons are carrying the ATIC 4 (Advanced Thin Ionization Calorimeter), CREAM III (Cosmic Ray Energetics And Mass) and BESS Polar (Balloon-Borne Experiment With A Superconducting Spectrometer) payloads.

NASA Sounding Rocket Operations Contract (NSROC) personnel are in Andenes, Norway, supporting the launch of three Black Brant XII sounding rockets currently scheduled for December and January from the Andoya Rocket Range.

A NSROC team also is at White Sands Missile Range, N.M., preparing for the launch of a Terrier-Black Brant sounding rocket in January.

It's Open Season

The Federal Employee Benefits Open Season runs through December 10.

This open season also includes the Federal Employees Dental and Vision Insurance Program (FEDVIP) and the Federal Flexible Spending Account Program (FSAFEDS).

During the open season, you may make changes to your FEHB coverage. Any eligible employee may: enroll in a FEHB plan; change from one health plan to another; change enrollment type from self only to self and family or from self and family to self only; change premium conversion election or change other options.

New enrollments or enrollment changes must be done via Employee Express, telephone voice response system, (800) 571-3453 or at the following site:
<http://www.employeeexpress.gov>

All open season FEHB changes will become effective on January 6, 2008.

For additional FEHB information visit:
<http://www.opm.gov/insure/health/index.asp>.

Plan brochures can be picked up in the Office of Human Capital Management, Building E-105, Room 305 or by calling Rich Billger at x2394.

Undergraduate Study Program

Applications are being accepted through December 5 for the Undergraduate Study Program (USP).

This is for entry into the Spring, Summer, and/or Fall 2008 semesters.

The program allows a limited number of eligible employees to pursue advanced academic studies relevant to Goddard Space Flight Centers' needs, aimed at enhancing their ability to make significant contributions to mission accomplishment and attaining organizational performance goals.

Interested applicants should visit the USP web page for additional information and application form at:
<http://ohcm.gsfc.nasa.gov/DevGuide/DevPrograms/Academic.htm>.

Applications will be reviewed and ranked by a panel. If accepted participants will be required to sign a one year Continued Service Agreement.

The completed application with management endorsement must be received by Qiuna Harris, Code 114, Building 1, Room E100H, no later than 4 p.m. on December 5.

Annual Ethics Training

If you are required to take annual ethics training and have not done so for 2007, you may take the training on SATERN at:
<https://satern.nasa.gov>

or attend one of following sessions:
November 29
2 to 3 p.m.
Building F-6, Rm. 201

November 30
10 to 11 a.m.
Building F-6, Rm. 201

If you are not sure if you are required to take annual ethics training, contact your Directorate Administrative Officer. Questions may be referred to the Office of Chief Counsel at x66-9181.

For Sale

1998 Mercury Marquis, leather, good gas mileage, 84K miles. Must sell. \$4,000 OBO. Call Teena Haugh at (757) 336-2477 after 5 p.m.

Inside Wallops is an official publication of Goddard Space Flight Center and is published by the Wallops Office of Public Affairs, Extension 1584, in the interest of Wallops employees. Recent and past issues of *Inside Wallops* also may be found at: <http://www.nasa.gov/centers/wallops/news/newsletters.html>

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